

Research and Development Grants awarded to State Universities through the ARRA

6/12/2009

Title of Project	Project Type	Amount	Period	Summary	Federal Agency	Institution
A molecular dynamics study of Amyloid beta peptide structure near lipid bilayers	Health	\$27,414	5/5/2009-5/4/2011	To determine appropriate treatments and potential cures for Neurodegenerative disorders; to understand the mechanism by which proteins misfold and aggregate.	National Institute on Aging	UNC-CH
Modeling HIV-1 Eradication Therapies in the hu-Rag2-/-gamma c-/- Mouse Model -	Health	\$219,479	4/1/2009-3/31/2011	Persistent HIV infection of memory CD4+ T cells is a critical obstacle to eradication of HIV-1 infection. To study agents to be developed that expose this viral reservoir to therapeutic intervention, without augmenting de novo HIV infection.	National Institutes of Health	UNC-CH
The nexus of drugs, sex networks, HIV and syphilis in young African American MSM	Outreach and Engagement	\$146,268	4/1/2009-3/31/2011	To study two phenomena observed in North Carolina that suggests dual outbreaks are occurring of HIV infection and primary and secondary (P&S) syphilis among a specific class of young adult African-American men.	National Institute on Drug Abuse	UNC-CH
Agent-based modeling of virus-host cell interaction in salivary gland disease	Health	\$30,458	5/5/2009-5/4/2011	Caries, periodontal disease, disfigurement, mucosal pathology and occasional development of B cell lymphomas result from salivary gland disorders (SGD) and a related HIV SGD, have no known cause or cure. To study the BKV infection or reactivation as a factor in disrupting cellular processes leading to the development of SGD.	National Institute of Dental and Craniofacial Research	UNC-CH
Instrumentation for upgrading cryoEM and single particle analysis capabilities	Health	\$310,074	4/1/2009-3/31/2010	Examination of the 3 dimensional structure of large macromolecular assemblies often of megadalton mass or greater remains beyond the reach of X ray or NMR methods.	National Institutes of Health	UNC-CH
Selective Attention and Control Mechanisms in the Brain.	Health	\$433,792	5/1/2009-4/30/2011	Mechanisms of attention are critical for efficiently processing relevant information and avoiding distraction amidst a constant flood of sensory input. If these mechanisms are damaged, cognitive and social functioning can be severely impaired.	National Institutes of Health	UNC-CH
Confocal Laser Scanning Microscope LSM 710 #5	Health	\$449,189	4/1/2009-3/31/2010	The purpose of this proposal is to purchase a Zeiss LSM 710 confocal laser scanning microscope that serves the Cancer Research	National Institutes of Health	UNC-CH

Francisella tularensis Pathogenesis	Health	\$363,985	5/1/2009-4/30/2010	Francisella tularensis is an extremely virulent Gram negative bacterial pathogen capable of causing rapidly progressing lethal infections in literally hundreds of diverse animal species, including humans.	National Institutes of Health	UNC-CH
Role of Yaps In Y. Pestis Pathogenesis	Health	\$367,558	5/15/2009-4/30/2010	Historically Y. pestis has been responsible for significant human morbidity and mortality. However, Y. pestis is typically a pathogen of rodents, and is unique among the Enterobacteriaceae in using a blood-sucking insect (flea) for transmission (34).	National Institute of Allergy and Infectious Diseases	UNC-CH
Pathogenesis of HCV in a Novel Mouse Model - ARRA	Environment	\$216,218	7/1/2009-6/30/2011	This project extends long-standing interests in studying human infectious diseases and therapy in relevant in vivo models.	National Institutes of Health	UNC-CH
Differential regulation of multiple transgenes for treatment of eye disease	Health	\$810,937	7/1/2009-6/30/2011	Differential regulation of multiple transgenes for treatment of eye disease	National Institutes of Health	UNC-CH
Francisella tularensis Interactions with Airway Epithelial Cells ARRA	Health	\$367,801	4/1/2009-3/31/2014	To Study Francisella tularensis, a zoonotic bacterial pathogen that causes fatal infections in hundreds of different animal species.	National Institutes of Health	UNC-CH
ARRA - Biomimetic Approach to the Fabrication of Red Blood Cell Mimics	Health	\$361,926	7/1/2009-6/30/2010	To study and develop safe and effective synthetic blood substitutes.	National Heart Lung and Blood Institute	UNC-CH
Antisocial Behavior, Genetics, and the Life Course	Health	\$221,875	12/1/2008-11/30/2010	The goal of this research is to integrate genetic and life course models of criminal and otherwise antisocial behaviors from adolescence to young adulthood.	NICHHD	UNC-CH
Lysyl Oxidase Control of TGF- β in Bone	Health	\$221,875	7/1/2009-6/30/2010	This project will investigate if Lysyl oxidase (LOX) oxidizes mature TGF- β 1 in bone and regulates its signaling that is critical for collagen production/ organization and mineralization.	National Institutes of Health	UNC-CH
Role of Programmed Cell Death10 (PDCD10) in p38 MAP Kinase activation and a PKD1 signaling	Health	\$185,000	12/1/2009-11/30/2011	Understanding and manipulating complex protein-protein interactions required for physiological signaling during angiogenesis and atherosclerosis is an important step in developing prevention and treatment for hemorrhagic stroke. Disruption of these interactions or dysregulation of signaling proteins can result in defective vascular formation and subsequent disease.	National Institutes of Health	UNC-CH

Harnessing Functional Genomics to Reveal Cancer Specific Determinants of Mitosis - - ARRA	Health	\$28,214	6/1/2009 8/31/2009	The goal of this supplement request is to accelerate the tempo of our research understanding the mechanisms that support mitotic progression in tumor cells. The parent grant for this supplement is focused on the characterization of previously unrecognized components of mitosis identified in a paclitaxel sensitizer screen.	National Cancer Institute	UNC-CH
The Inferior Colliculus as a Site of Electrical Stimulation ARRA	Health	\$6,048	6/1/2009 7/31/2009	To study additional methods to enable deaf persons to hear.	National Institutes of Health	UNC-CH
Differentiation of Alveolar Epithelium and Pulmonary Fibrosis	Health	\$74,459	5/11/2009- 4/30/2010	To apply new concepts developed from recent in vitro modeling of normal human alveolar epithelial cell differentiation and in vivo modeling of pulmonary fibrosis in rats to study novel ideas	National Institutes of Health	NCSU
Live Oral Listeria Vaccine Vector	Health	\$185,620	6/1/2009 5/31/2009	The purpose of this R21 application is to explore the feasibility of using bacteriophage resistance as a feature of a live, attenuated, oral Listeria monocytogenes vaccine delivery platform.	National Institutes of Health	NCSU
Improving Animal Resources at N.C. State University	Economic Transformation	\$161,470	6/8/2009 6/7/2010	This improvement request involves animal facility equipment purchase for the North Carolina State University (NCSU) College of Veterinary Medicine (CVM), specifically, individually ventilated cage systems for mice, and support equipment, for use in the the Research Building Vivarium.	National Institutes of Health	NCSU
High-Resolution Structures and Ligand-Induced Conformational Changes of Membrane Proteins by Solid-State NMR: Methodology Development and Applications	Economic Transformation	\$776,892	7/1/2009 6/30/2013	To research membrane proteins to Answer important biological and biophysical questions by radically improving current SSNMR methods.	National Science Foundation	NCSU
HCC: Medium: Collaborative Research: Improving Older Adult Cognition: The Unexamined Role of Games and Social Computing Environments	Health	\$770,856	9/1/2009 8/31/2013	The goals of this research program are to understand how variables within social computing environments improve older adult cognition, what properties of an environment are critical, and empirically test these properties in interventions with older adults.	National Science Foundation	NCSU

Kenan Fellows Master Teachers: Partnering For Success in the 21st Century	Health, Outreach and Engagement	\$1,499,934	6/2/2009-5/31/2011	The Kenan Fellows Program is partnering with interested parties in North Carolina's BRAC/RFT region to improve K-12 STEM education in these counties high-need schools.	National Science Foundation	NCSU
Fertility and Oral Contraceptive use Study (FOCUS)	Health	\$216,000	5/1/2009-4/30/2011	A 2-year cohort pilot study with the overall goal of examining methodological issues related to the successful implementation of a large study to investigate the role of obesity in OC failure.	DHHS/NIH/NICHD	UNC Charlotte
Using a Community Based Participatory Research Approach to Examine Family Support		\$216,000	6/2/2009-5/31/2011	The long-range objectives of this project are to improve family functioning and reduce disparities in mental health services and outcomes through the development of a sustainable research partnership among family support providers and university researchers.	DHHS/NIH/NIMH	UNC Charlotte
Mother's Part-Time Employment	Economic Transformation	\$69,750	5/8/2009-4/30/2010	To study the relation between maternal part-time employment and mother's psychological well-being and parental role functioning during three periods of children's development: infant-toddler, preschool, and school age.	DHHS/NIH/NICHD	UNCG
WellnessCorps	Public Education	\$410,816	7/1/2009-6/30/2010	The purpose of the project is to use Wellness tutors and mentors to work with school age students who are at risk of developing juvenile diabetes.	National Institutes of Health	ECU
Collaborative Integration of Public Health Content into Undergraduate Education	Health	\$14,974	6/1/2009-11/30/2010	To establish a joint program between the ECU and Pitt Community College for the integration of public health content into undergraduate liberal arts education.	Assoc. for Prevention and Teaching	ECU
Mathematics and Science Education Noyce Scholars Program	Public Education	\$899,524	6/1/2009-5/31/2014	East Carolina University (ECU) proposes using Noyce stipends to recruit and prepare teachers of high school science in ECU Noyce Scholars: Science Majors Teaching Science (SMTS).	Dept of Education	ECU
Implication of ANAMMOX Community Structure and Microbial Interactions in Estuarine N Removal Processes	Environment	\$515,800	6/1/2009-5/31/2012	This project addresses key gaps in our understanding of ANAMMOX ecology.	National Science Foundation	UNCW
	Total	\$10,580,206				